



February 7, 1997
87X4660 13.01

Mr. Barry Cohen
Ciba Specialty Chemical Corp.
P.O. Box 71
Route 73 West
Toms River, NJ 08754

Re: Baseline sampling of headspace and soil at SWMU-11

Dear Barry:

As we discussed, sampling of headspace and soil will need to be performed at SWMU-11 to evaluate baseline concentrations of VOCs prior to the full startup of the soil vapor extraction (SVE) system. This letter presents our approach for conducting this investigation. It also addresses schedule and costs.

In the *Revised Final Stabilization Design Documents* (January 1995), Ciba proposed to sample headspace and soil at SWMU-11 prior to operating the SVE system continuously. Although some limited sampling of soil was performed at SWMU-11 in 1991, it is likely that the concentrations within this area have changed since then. To evaluate current baseline VOC concentrations, we propose to sample headspace and soil from borings advanced within SWMU-11.

Approach - Prior to operating the SVE system continuously, 7 borings will be advanced within SWMU-11. From each boring, soil will be sampled continuously (using split-spoon samplers) from two-feet below grade down to the water table. For each soil sample collected, the headspace will be screened in the field. The sample with the highest headspace concentration will be submitted for laboratory analysis. One sample per boring will be analyzed for VOCs. To measure changes in VOC concentrations over time, selected borings will be located near borings advanced during Phase I of the RCRA Facility Investigation and within the soil gas plume delineated during the soil gas survey. A map showing the proposed boring locations is shown in Figure 1. These locations may need to be revised, depending on field conditions encountered during this investigation.

MEASURE H₂O TABLE DEPTH BELOW GRADE / SEA LEVEL

MAP w/
LOCATIONS
CORRESPONDING
TO 1991 LOCATIONS
OK

Laboratory Analysis - Soil samples will be analyzed for VOCs using Method 8240. Ciba will contract directly with the lab. For this investigation, the analytical results will not be validated.

OK

Drilling - Drilling will be performed by a local drilling contractor. Woodward-Clyde Consultants will contract with the drillers.

Surveying - The new boring locations will be surveyed after the drilling program is completed. We will locate selected old borings in SWMU-11 using a scaled drawing and known reference points. Woodward-Clyde Consultants will contract with the surveyors.

Waste Management - Soil cuttings and water generated during decontamination will be handled as follows:

Lexington Office

One Cranberry Hill • Lexington, MA 02173
617-863-0667 • Fax 617-863-0807



SEMS DocID 100016468

Woodward-Clyde

- Soil cuttings generated during drilling will be returned to its original borehole after that boring is terminated. Soil spoils will not be drummed for subsequent disposal.
- Water generated during decontamination of the drill rig, sampling augers, and sampling tools will not be drummed. Decontamination will be performed downgradient of SWMU-11. Water generated during decontamination would be allowed to infiltrate back into the ground (downgradient of SWUM-11).

Schedule - We understand that Ciba would like to perform this work after startup and shakedown of the SVE is completed but before continuous operation begins. We have tentatively scheduled this work to begin the week of February 24, 1997. We estimate that the field effort will require about 2 two-days to complete.

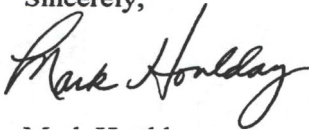
Estimated Cost - We estimate the cost to complete this investigation at approximately \$8200. A high-level breakdown of these costs is presented here:

Woodward-Clyde Labor	
Planning	\$ 500.
Mobilization	\$ 500.
Sampling	\$2000.
Expenses	\$ 500.
Update H&S Plan	<u>\$ 500.</u>
	\$4000.
Other Contracted Services	
Drilling	\$3000.
Surveying	<u>\$1200.</u>
	\$4200.
Total Cost	\$8200. *

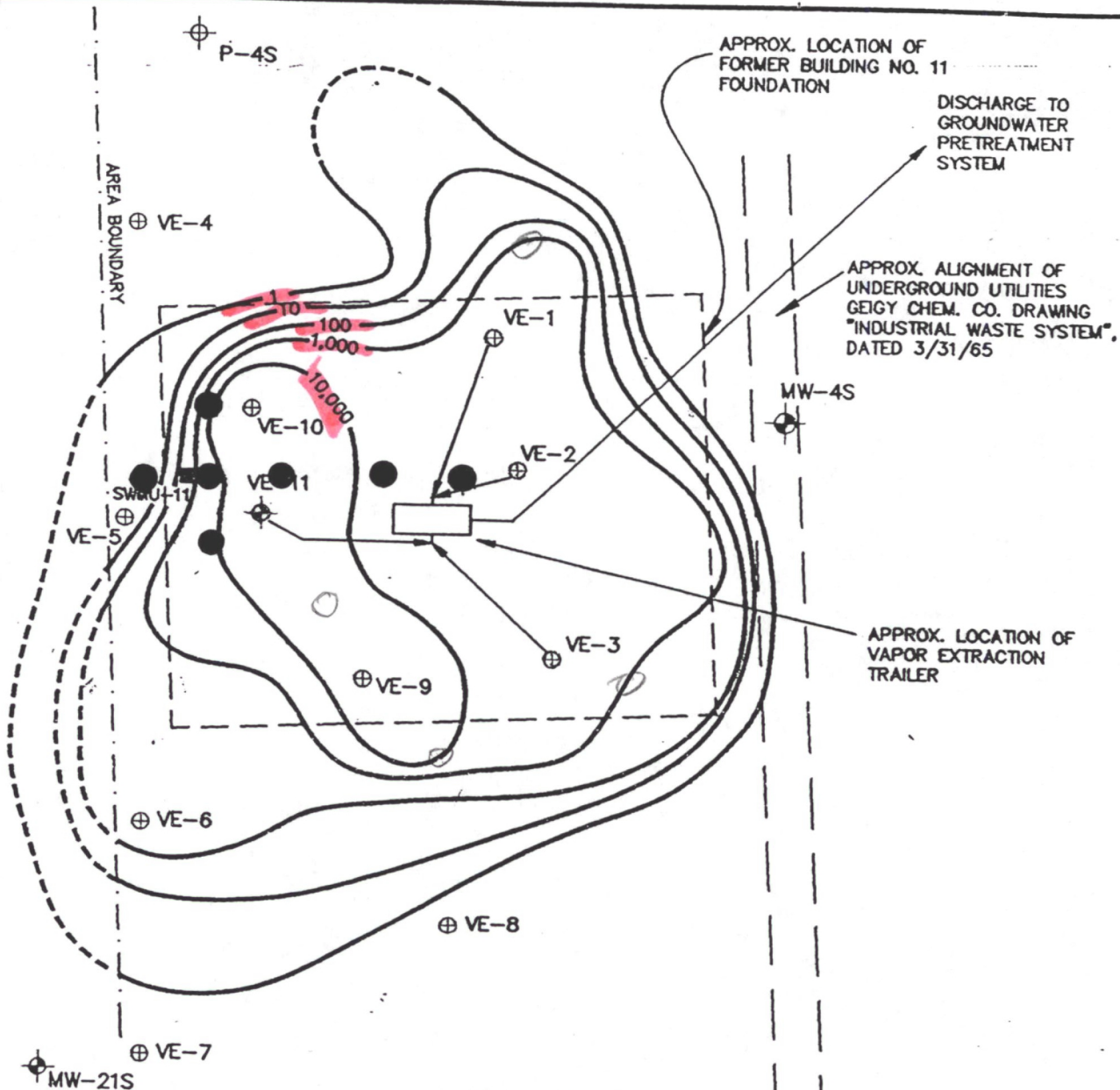
* Costs for laboratory analysis and reducing and analyzing data collected during this investigation is not included here.

Should you have any questions or comments, please feel free to contact me.

Sincerely,



Mark Houlday
Project Manager



LEGEND:

- EXISTING MONITORING WELL
- EXISTING PIEZOMETER
- EXISTING VAPOR EXTRACTION WELL
- 10- ISOCONCENTRATION LINE (ppbv)

SOURCE OF BASE: TRACER RESEARCH CO.

PROPOSED WELL FUNCTION

- SOIL VAPOR EXTRACTION AND GROUNDWATER PUMPING
- PROPOSED SOIL BORING LOCATIONS FOR SVE STUDY
- GROUNDWATER PUMPING/OBSERVATION WELL
- OBSERVATION WELL

**WELL LOCATIONS FOR THE
SOIL VAPOR
EXTRACTION SYSTEM**

WOODWARD-CLYDE CONSULTANTS

ENGINEERING & SCIENCES APPLIED TO THE EARTH & ITS ENVIRONMENT
WAYNE, NEW JERSEY

DR. BY	BTM	SCALE	1:300	DWG. NO.	74680011	PROJ.	87X4660
CHK'D BY	TAM	DATE	MAY 24, 1994	FIG. NO.	2-6		